

## **Excerpts from the LII Management Plan (2000)**

### **1 Executive summary**

This section provides a summary of recommendations made in this report, with cross-references to the appropriate sections.

#### **1.1 Recommendations for governance and structure**

##### **1.1.1 Use of a non-profit model; mission statement**

We believe that modeling ourselves after non-profit organizations offers a better perspective than for-profit business planning would (section 2.3). To that end we offer a mission statement (section 3 ) as a basis for planning and evaluation.

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#### **1.2 Recommendations for staffing**

##### **1.2.1 Addition of marketing, fundraising, and/or business personnel**

We need access to marketing, fundraising, and general business expertise. Some of these needs overlap those of the School at large and some are unique to the LII. We would prefer to hire a dedicated “business person” to work on these and other business-planning issues for the LII (section 4.4.3.3). We acknowledge that there is a general need for some of these services throughout the school, particularly for grants writing, but worry that sharing such a position would ultimately prove an inadequate solution and a barrier to hiring qualified personnel, for whom the attraction might well be the resume credit inherent in working on an Internet-oriented activity.

##### **1.2.2 Hire of one editorial staff member**

We currently have need for one staff position that would provide strong editorial skills and expertise as well as a kind of continuity not possible with students. All final editorial supervision of our 100,000+ Web pages rests with LII founders at the present time, and some relief is needed (section 5.2.3).

##### **1.2.3 Hire of one programmer**

By the same token, there are massive amounts of routine programming work that cannot be done by students, and a hire in this area is needed (section 5.2.4).

#### **1.3 Relationship with Law School and University**

##### **1.3.1 Negotiation of brand and intellectual property rights**

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##### **1.3.2 Establishment of process for succession**

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### 1.3.3 Integration of these structures and agreements with existing Law School organization

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## **1.4 Planning recommendations**

### 1.4.1 Fundraising

#### **1.4.1.1 Establish targets for unearned income**

Realistic planning demands that we be able to project unearned as well as earned income. We realize that this is tricky business, particularly because we are as novel as a focus for the largesse of donors and foundations as we are in other ways. Nonetheless we think that we need to set realistic targets and begin specific planning for a campaign of sorts (section 6.2).

#### **1.4.1.2 Renewed grants-writing efforts**

Whether it is met by the efforts of a dedicated LII staffer or by existing development personnel, there is a need for renewed effort to obtain grants from private foundations (section 6.2.1).

#### **1.4.1.3 Better solicitation of audience; sponsorships**

The LII has undertaken some fundraising efforts by direct appeal to the users of its services (the “NPR model”). We believe that income from these sources, and from the sponsorship of specific collections, could be greatly increased (sections 6.2.2, 6.2.3).

### 1.4.2 Earned income

#### **1.4.2.1 Repricing and improved marketing of current products**

Pricing of our current product and service offerings has largely been a seat-of-the-pants affair, and it needs to be re-examined with an eye to increasing income. We believe that our products are underpriced and that we could expand their markets considerably with some effort (section 7).

#### **1.4.2.2 Reputational marketing and publication**

There is another form of “marketing” we have neglected for lack of time: writing about what we do, either in the form of traditional academic publishing or of white papers documenting our approaches and findings. (section 7.3) Each of these will become increasingly important as we seek to lead broad, standards-based efforts (section 9.2).

#### **1.4.2.3 Spinoff products and services as a focus for rigorous business planning**

There is great potential for the development of spinoff products and services that take advantage of LII data holdings and accumulated expertise, but are not in and of themselves technically or conceptually interesting any longer. We could provide a unique locale for the development and marketing of such services by others, but careful business planning and appropriate additions of personnel would be necessary and can only be determined on a case-by-case basis (see section 7.2 and the introduction to section 9).

## **1.5 Projects and initiatives**

### **1.5.1 Abandonment**

We need to develop mechanisms for the creative abandonment of projects whose research interest has waned (even if audience has not). This might involve turning them over to other actors within the Law School, or to the private sector. It might mean abandoning them altogether if new sponsorship cannot be found. Convincing others within the School to take them up may involve considerable encouragement and persuasion that can only come from the Dean (section 8).

### **1.5.2 Continuations**

We catalog a number of projects of continuing interest, including various substantive collections, distance-learning activities, standards-development efforts, and digital library projects (section 8).

### **1.5.3 Unrealized ideas**

We list here a number of unrealized (and at present unrealizable) ideas for new products, services, and areas of investigation. They are highly diverse in focus and substance, but the same in that all are things that we do not possess the resources to do (section 9.4)

## **2 Introduction**

### **2.1 What questions are we trying to answer?**

This plan attempts to answer the question, “What must the LII and the Law School each do if the LII is to survive, and if it is to accrue maximum benefit for the school?” This is not a simple question, in part because the LII does not fit cleanly into ordinary institutional patterns and in part because we are attempting to steer a ship that is already underway. There is some institutional history to consider, and a considerable amount of work in progress (see section 0). We should probably also point out that our notion of “maximum benefit” is not strictly fiscal and that, as a result, this is not a business plan (though it makes repeated calls for sound business planning).

We have broken this all-embracing question of the long-term good into several smaller but nonetheless daunting questions, set forth here as a rough guide to what follows. Throughout the document the reader will find copious cross-references; most of the questions are somehow connected or depend for their answers on plans and structures that in turn address more than one problem.

The questions, then, are:

- *How are we to overcome limitations of founder time and skill?*

At this point the LII simply cannot take on more without increasing available staff resources. We are now entirely constrained by “founder time” – that is, the amount of time the Bruce and Martin have to put into new (or even existing) efforts. While our small staff is very capable, we have not reached the critical mass that would allow some projects to continue with only indirect supervision by us. Matters like fundraising and business planning, for all that they may be important in the long run, tend to perish under the weight of day-to-day needs and activities (see sections 4.1.2.2, 4.4, 5 and 8).

There are also limits of skill. Each of us is by nature somewhat entrepreneurial, perhaps more so than most of our colleagues, but neither of us has the skill set needed to do fundraising, market research, or commercial business and product development. Each of us can work with graphical materials, but we are

not graphic artists. We need to hire additional expertise, some of it full-time and some of it not (see section 5)

- *What set of formal relationships are we to have with the school?*

Initially it was difficult to form concrete agreements with the School because neither the LII nor the School could say much about the shape of the future, or even if there *was* a future. At this point the success of the LII is apparent. It is clear that it can be an engine for institutional advancement. But previous efforts at creating concrete agreements have been desultory and inconclusive, and until recently a series of unfortunate political events had combined with a general lack of understanding and even occasional hostility within the faculty to make us a bit insecure. We each need to know what we can expect from the other in terms of overall commitment and in terms of agreements about intellectual property and rights to the “LII brand” (see sections 2.2, 4.1, and 6.1).

- *How are we to maximize the potential for both earned and unearned income?*

There is enormous potential for the LII to create income streams and to enhance the income streams that it has, both earned and unearned. To do so will require great creativity, unconventional thinking, and sound business and development planning. We need to re-price our current products and services and to create new services that can operate on a sound business basis. We need to increase our visibility to donors and create an endowment. We cannot do any of this without help and without sound and specific planning for fundraising activities (see sections 6 and 7).

- *How are we to deal with problems of founder succession on a not-too-distant horizon?*

The LII is ill-equipped to survive the departure of either of its founders, and the existing institutional methods for recruiting replacements are, we believe, inadequate. This is not an immediate problem, but with Martin entering a decade in which full or partial retirement is probable and both of us in an arena where the opportunities are great it would be unwise not to have a mechanism for succession in place. This is particularly so if, as we believe, an adequate mechanism would involve tricky cultural and institutional questions (sections 2.2, 4 generally, and 4.1.2.1 in particular).

- *How should we structure our planning process to maximize our agility and ensure leadership while continuing activities that remain useful and valuable?*

The LII occupies a position of leadership in the field of public legal information architecture. That position is continually threatened by rapid change in the technology base and in the business environment for legal publishing. We won it by virtue of foresight and sustained effort, and we have created a number of collections that are relied on by literally hundreds of thousands of audience members. But the unfortunate truth is that we will lose that position of leadership (and ultimately our audience, as well) if we cannot find other hands to take care of some day-to-day LII activities, and if we do not have the ability to shed as well as add activities. We are caught in a Red Queen’s Race, and we need to find ways to escape it (sections 5, 8, 9).

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### **3 Mission statement**

It seems wise at the outset to consider what it is we are trying to do and how we will know if we have succeeded, and so we begin with a mission statement. Far too often, mission statements are empty if high-sounding generalities intended to throw every constituent a bone and have little to say about what it is that an organization actually *does*. We attempt to avoid that trap. After all, a mission statement is, when all is said and done, the only basis that a nonprofit organization has for judging whether or not it is succeeding. Commercial operations enjoy the luxury of making decisions that are often guided solely and simply by

measuring profit (as do we in some areas where we seek earned income). The more difficult question we must continually answer is whether we are reaching unquantifiable goals that we ourselves have formulated, even as the immediate paths toward those goals shift under the pressures of changing technologies and a rough-and-tumble marketplace. We also need some means of evaluating whether a projected activity is something we should undertake, and whether a current activity is something that has strayed off-target. A mission statement provides the means of doing both.

We take a two tiered approach here, following a very general statement of our mission with a number of more concrete specifics. Left unstated here are any specific goals having to do with the enhancement of the School's reputation or of its relationship with alumni, the judiciary, the bar, or other important external constituencies. While we know that the LII has been a powerful channel for enhancing that reputation and those relationships, we believe that such things are side effects. They cannot occur in the absence of real achievement in the core areas we outline here, and for that reason we exclude them from the mission statement. They are nonetheless very important to us, as we believe they are to the school.

### ***3.1 Our mission: generally stated***

The mission of the Legal Information Institute is to conduct applied research that will render law more accessible to law students and legal academics, to the legal profession, and to the general public in the United States and abroad.

### ***3.2 Our mission: detailed framework***

To that end, the LII will:

Create flagship collections of electronic caselaw, statutes, and other primary legal materials that furnish both technical and intellectual exemplars to other publishers of legal information;

Use the intellectual resources of the Cornell Law School to create electronic secondary sources that explain and illuminate the law for the benefit of students, academics, professionals, and the general public;

Conduct research into electronic publishing , information retrieval, and resource-location problems related to the delivery of electronic legal text;

Design and create frameworks for distance learning initiatives that develop and spread expertise about the law and legal education to the law school itself, to Cornell, and to other institutions;

Work with peer institutes and public information providers to develop and promote standards for interoperable, distributed, global collections of legal information;

Serve as a center of expertise in electronic legal publishing, making that expertise available to the profession, to public bodies that create legal information, to commercial and non-profit legal publishers, and to other law schools;

Develop concrete legal-information products and services that serve both "law people" and a very large body of interested and informed others, including teachers and students in other parts of the education community, professionals with strong legal interests, and academics in related disciplines;

Work to create and develop legal-information infrastructure in developing nations, as a resource center, partner, and teacher.

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## **6 Finance**

### **6.1 *Ways in which we shatter traditional paradigms***

From the outset the two of us, Bruce and Martin, have put all our creative output and the resulting revenues into the LII. Both of us had pre-existing publishing or consulting arrangements, but since combining forces in the institute, we have done all our consulting, speaking, writing, and editing as "the LII". We have turned down individual arrangements with commercial entities that would have subtracted time and focus from the LII or compromised our institute's commercial neutrality. While other Internet projects that began in the academy have, long since, moved to commercial form with great gain to the principals (Yahoo and Findlaw, to name two) we have held to our original non-profit path.

Software royalties, consulting for Westlaw and LEXIS and others, and the other forms of current income noted below are all in a fundamental sense return on the expertise, effort, and creativity of the LII principals. While this substantial personal investment in the LII gives the founders no legal claim upon the school, it explains why we view ourselves as having a very concrete stake in the institute's future. Having established an institute within Cornell rather than a separate entity (profit or non-profit) as the vehicle for our work and having at numerous points since chosen to continue putting our projects into it rather than outside it we have the mindset of proprietors.

Furthermore, both of us are at a point where the allocation of future time and commercially valuable intellectual output can continue to be toward the LII, as it has consistently been since 1992, or can be treated as extracurricular outside work in line with the dominant academic model. With Martin's Social Security work reverting to him this coming May and Bruce's ongoing involvement with Harvard projects in issue, both confront important decisions about whether to continue in the anomalous pattern of doing everything as Cornell and returning all resulting revenue to the LII. We are building courses for on-line delivery to students at other law schools. Here too our working assumption is that those courses will be prepared, owned, and maintained by "the LII" with associated revenue coming to the institute rather than the creators. We observe, however, that other academics moving into the "distance education" market are doing so as individual entrepreneurs.

This plan, including significantly, the following revenue projections and alternatives rests on an important assumption, namely that the LII principals will continue to direct their time and creative output into the institute.

### **6.2 *Unearned income***

#### **6.2.1 Grants**

Critical to the establishment of the LII was a substantial grant secured by Martin from the National Center for Automated Information Research (NCAIR, an entity that no longer exists). Through the end of 1996, NCAIR distributed \$320,000 in a series of declining grants to the Institute. Aside from a summer stipend for Martin and a few months salary support for Bruce during the LII's first year, the NCAIR grants were focused on building infrastructure and the creation of new products and services, some of which have become self-sustaining. The NCAIR grants allowed the LII to create a systems administrator position and later the post of part-time administrative manager, to hire the student summer crew to build course materials, to create the LIIBULLETIN-NY, and to cover the costs of establishing a dedicated Supreme Court server.

Subsequent efforts to secure grant funding from other sources have not panned out. NCAIR was unique in its emphasis on the application of technology to law. Our subsequent attempts include: a short-form proposal for the Markle Foundation and a far more elaborate one that we submitted to the NSF in response to its broad digital collections initiative. More recently we submitted a letter of inquiry to the William and Linda Gates Foundation. None were successful.

We have learned several lessons from this set of disappointments. First, we need considerable assistance in this line of fundraising (as well as others); selecting targets and writing grant proposals is not an optimal use of our time. Second, to the extent our activities are tightly identified with the U.S. legal profession we carry a heavy burden; improving American lawyers' access to legal materials is not on any foundation priority list. Because of our institutional base, those who don't look closely may imagine that we are simply a free Westlaw. Another issue for some potential funders, critical in the case of the NSF, is our emphasis on applied research, experimental work that takes the form of designing and building services of potential value.

We remain convinced that portions of our work, properly presented, should be attractive to grant-making bodies concerned with improving citizen access to law and the legal system, education about law at the elementary and secondary school level, and legal infrastructure building in developing countries. With effective staff support and direction, the school ought to be able to identify entities with such priorities and persuade them of the importance of supporting LII work.

The Keck grant to Cornell Law School in support of legal ethics initiatives represents another model -- that is, grant support for a particular program area at the school where an LII component is a distinguishing feature of the proposal and a significant part of the resulting funding.

## 6.2.2 Donations

In the spring of 1996, we first experimented with what we have come to call the NPR (National Public Radio) model, in connection with one of our services -- the LIIBULLETIN. We put out a special issue that invited all recipients to contribute if they were able (suggesting contributions of \$25 per individual, \$100 per firm). The initial solicitation brought in a modest \$3,000. We have discussed, but not implemented, a broader implementation of this approach. This could take the form of more frequent solicitations of bulletin recipients, but go well beyond that to include periodic solicitation on the web site. These could be generated selectively -- appearing, for example, along with web documents only during particular times, only to repeat visitors, etc. Since the LII reaches countless individuals and entities who have no other connection with Cornell, there seems to be a great potential for securing donations from sources that would not otherwise be contributing to the law school or Cornell.

The LII is also, however, an attractive target for alumni contribution -- and among some alumni, uniquely attractive. To date we have drawn significant gifts from a few alumni.

## 6.2.3 Sponsorship of specific projects

### **Supreme Court server**

When Case Western dropped its Supreme Court decision subscription, we secured a \$40,000 grant from NCAIR that allowed us to acquire a dedicated server and necessary software, contract with the Court for a subscription of our own, and pay the associated phone charges. Sufficient funds remain from that grant (roughly \$11,000) to cover the direct costs of our Supreme Court related services for at least two more years.

### **Beijing server**

Our Beijing server (<http://www.law.edu.cn/>) located at Tsinghua University was created at the behest of the Bridge to Asia foundation and supported with equipment by Sun. A hostage of the uncertain political relations between the U.S. and China since it was placed on line this toehold in China offers immense potential for both future program and fundraising.

## **LIIBULLETIN-NY**

Begun initially with NCAIR money and kept going with revenues diverted from other LII sources (see consulting below), the LIIBULLETIN-NY is now sponsored by the New York State Bar Association. NYSBA has paid \$20,000 for a year of sponsorship beginning July 1, 1999. Sponsorship means three things: a prominent statement to that effect on the bulletin itself, full rights to redistribute summaries and commentaries falling within the scope of interest of individual NYSBA sections to members, and the limited involvement of Bruce, Crooks, and Martin in NYSBA technology discussions.

## **American Legal Ethics Library**

While the American Legal Ethics Library is becoming a revenue source in its own right (see below), student wages, organizational meeting costs, and marketing costs have all been supported by Keck Foundation money.

## **Diverse future possibilities**

During the LII's early years, we secured a reasonable number of corporate sponsorships -- offering public appreciation and an Internet technology briefing for \$5,000. In several cases this led to joint study and consulting projects. The sponsors were all law publishers nervous about the new medium. As that revenue source dried up a potentially more lucrative alternative arose involving many of the same players, namely advertising. We rejected it and continue to believe that our site should be kept commercial free.

As public radio has taught us, sponsorship is not advertising. In the same way that a physical structure like Myron Taylor Hall represents numerous "named giving opportunities" our Web site provides an immense array of sponsorship possibilities. Each of our major collections, indeed, each "Law about ..." page could be sponsored for a period of time (probably a year, minimum) by a law firm, law publisher, or other entity. We have held back from seeking revenue in this form in part due to inertia but also out of uncertainty about criteria and terms and conditions. Would we say "yes" to any potential sponsor and what limits on logo and linkage and representations about the relationship would we need to lay down and police? The issue was posed most recently in discussions about possible forms of LII connection to a site (and book) known as [www.boomerbasics.com](http://www.boomerbasics.com). Within the last two months we have had four similar overtures.

If a significant number of LII pages were to be sponsored by "Boomer Basics" or other equally unfamiliar law-related ventures and interest groups with links to their sites, the nature or image of the Institute's site would be significantly altered.

## **6.2.4 Earned income - Current projects earning income**

### **American Legal Ethics Library**

We sell the American Legal Ethics Library CD-ROM for \$25 (for an individual). The potential for bulk sales or special editions in states covered by strong narratives is high. Currently, the only such arrangement in place is an annual license to the ALAS malpractice group which includes our library on its CD-ROM version of the ALAS Loss Prevention Manual. That license generated \$5,000 for the LII in 1998; \$7,500 in 1999. Individual disc sales have, to date, produced revenues of only \$2,411. Among the current LII products that should be able to generate substantial revenues with effective marketing this ranks number one.

## **Supreme Court CD**

The LII collection of Historic Supreme Court decisions on CD-ROM is our best selling work. Licensed by schools, colleges, libraries, and teachers it has brought in over \$30,000. The 1999 edition had, by Jan. 1, 2000, generated revenues of \$8,000. All of this occurred without a serious marketing program.

## **Course materials**

Originally sold on diskette, the LII library of core course documents now offers law teachers, students, and lawyers downloadable hypertext versions of the Federal Rules of Civil Procedure, Criminal Procedure, and Evidence, the UCC, as well as Federal statutes central to particular fields (e.g., the Administrative Procedure Act, the Copyright Act, the Securities Act) plus an introduction to legal citation. Each title costs \$5. During the fiscal year running from July 1, 1998 to June 30, 1999 sales of these materials brought in nearly \$7,000.

## **Consulting and contract work**

As software royalties (from the Cello browser code) and NCAIR grant support declined, our principal source of non-law school funding became consulting. We had substantial contracts with West and LEXIS that assisted both think about and then implement Web delivery. Since July 1998 our principal consulting work has been for LEXIS, in the form of Bruce's work on the Bridge project (\$57,000 during this period). Other consulting or contract work on specific projects include our consulting with the New York State Bar Association on the Web pages for individual sections. This largely combines student workers, the adaptation of existing LII Web content to create topical resources for NYSBA, and creation of discussion lists. It has generated \$12,500 since July 1, 1998 and provides part-time work for a student through the year. We have also entered into a contract with the New York Court of Claims for the preparation of a system that will enable that court to create a database of its own decisions for both internal and external reference. That contract has brought in \$9,900 since July 1998 and miscellaneous other speaking engagements and consulting work has earned the LII \$7,250 over the same period.

## **Distance Learning (past and present)**

Over the three years that the LII offered a course on Copyright and Digital Works to students at three other law schools, those schools paid a lump sum of \$5,000 per year for the course producing total income from the course of \$15,000 per year. Future distance learning offerings should yield a much greater revenue flow. (See the discussion of this topic *infra*.)

## **9 Project specifics**

It is convenient to divide existing LII activities into three domains: publication, technology, and teaching. These categories are useful in organizing our exposition here, but it should also be borne in mind that they are neither sharply divided nor mutually exclusive. As we point out in the section on distance learning, there is considerable overlap between the publication and teaching domains, and technology acts as an underpinning for the other two as well as an area of investigation in its own right.

We might also divide the LII world into realms of present and future activity, but it would be a blurry boundary. Most of our current projects are works in progress. In part this is because our understanding of the processes involved is improving and in part it reflects the pressures of an endless supply of new technology to master and apply as well as the need to write and communicate more about what we have already done. There are few things we are doing that are in any sense finished. For that reason, the catalog of projects below lists things we are doing and describes ways in which they should be extended.

Our ideas about “future-future” projects include two broad descriptive categories that deserve some discussion here, and a further “laundry list” of good ideas we have been unable to pursue for lack of time. The first broad area takes in a large number of small, income-creating spinoff projects whose potential we have noted but which we lack both the interest and the resources to carry out. In general these are things like current-awareness services that build on current LII information assets through the use of well-understood technology – no longer interesting from a research or leadership standpoint, but potentially sources of income. Each of these possible activities needs rigorous planning and assessment from a “strictly business” point of view – that is, each is a potentially commercial activity that calls for its own business plan and (potentially) for its own incremental staffing. We believe that in order to plan and execute these successfully we need to add a business person to the LII staff. A second class of project we have not even begun to approach has to do with the study of the LII itself – with examining the social and informational interactions that take place around a large legal website. We believe that we could provide a fruitful arena for study by someone interested in interactions between law and the legal system and the general public. What this would demand from us institutionally is not clear; what is clear is that so far nobody has been creative enough to ask, and we may need to encourage them.

Absent from any consideration here, but very important to us, are projects to be undertaken in association with other individuals and programs within the school. They are absent because we do not yet know enough about their shape to go into any detail, but they loom large with us. The one conspicuous example of such collaboration, the American Legal Ethics Library, has been hugely successful. Any and all of our editorial and computing expertise might be applied to this kind of work given adequate resources. The danger in such projects is that, once mastered, they devolve into manufacturing operations that represent a huge opportunity cost. As with any of our other operations, we must undertake them in a way that ultimately allows them to be given into the hands of others or to become part of a routinized production apparatus that evolves to accommodate them.

Finally, there are those things that look awfully appealing but that we simply do not have time to pursue in our present configuration.

## **9.1 Publication domain**

### 9.1.1 Academic publication projects

#### **LEDA (jointly with HLSL)**

The LEDA project is an experiment in distributed publishing undertaken jointly with the Harvard Law School Library. Basically, LEDA represents an elegant way of aggregating collections of working papers, theses, and other monographs. It will provide the means for extended bibliographic searches across collections (any LEDA document, no matter where it is housed, will be locatable from any LEDA site) and for improving the cataloging of legal gray literature generally. In one of its aspects it can be seen as the extension of our work with the collection of working papers at Cornell, and that project is for us a facet of its development.

The LEDA architecture is a collection of software surrounding a specially-designed bibliographic database. It provides individual law schools with a mechanism by which they may inexpensively create local repositories of digital documents (such as journal articles, theses, occasional papers, working-papers collections, and others) that collectively have a much higher degree of functionality than simple, localized self-publishing on the Web would permit. LEDA relies on carefully-guided self-cataloging by author/submitters and a distributed data architecture to enable bibliographic searching across all sites in the LEDA “system”, and to create significantly better potential for data archiving than would exist under ordinary self-publishing practices. In effect, LEDA provides the infrastructure for a discipline-wide digital library without imposing unnecessary (or even very many) burdens on individual institutions (thus greatly increasing the likelihood of discipline-wide participation).

Still in the local-testing phase, it will be ready for a multisite demonstration in June of this year. There is considerable interest in the project from those few institutions (Duke, Emory, Columbia, Yale) to whom we have mentioned it; we believe that all will participate as test sites. We think LEDA will find favorable reception in the law school community at large. Outside interest from the digital library community in general is also high, as the approach taken by LEDA is consistent with developing standards for digital libraries, and is somewhat more sophisticated than most in the way it treats problems of self-cataloging and document submission.

How LEDA will progress institutionally is an interesting question, both as a question for LEDA itself and in the context of larger faculty dissatisfactions with the law-review regime. For the moment LEDA is comfortably housed at Harvard. However, it is clear that it will be at least two years before there is sufficient buy-in from the law-school community at large to justify the formation of a consortium to fund further LEDA maintenance and development. It is likely that throughout this interim, "wait-and-see" period work will continue to be funded by Harvard, but Bruce would like to use the project as a nucleus for the formation of a law-oriented digital library standards effort in which the LII would be a major player (these are not conflicting goals by any means).

Such an effort would be daunting enough on its own, but it is becoming clearer as time goes on that it might also serve other needs being expressed by the community of legal academics, mostly in the form of gripes about law reviews. Some preliminary discussions with others interested in the issue suggest that LEDA or another distributed digital library might well solve some of these problems, were serious consideration of alternatives to the present system of journal publication to take place. It is an open question whether faculty dissatisfaction with the present system is sufficient to fuel interest in a new means of publication, whatever merits that system might possess. However this turns out, it is likely that the LII will get considerable reputational benefit from it.

## 9.1.2 Public-sector publication

### **U.S. Supreme Court**

#### Opinions

The LII collection of recent Supreme Court decisions reaches back to the Spring of 1990, which was when the Court began to experiment with releasing its decisions in electronic format and Case Western University began to receive and archive them. In 1993, the LII, experimenting with the then new WWW technology created a Web front-end to the Case Western archive. Later the same year, the LII launched its e-mail delivered current awareness service covering the Court, the LIIBULLETIN. In 1997, confronted with a decision by Case Western to cease contracting to receive the Court's opinions, the Institute secured a special grant from NCAIR, acquired its own subscription, and began streamed conversion of the decisions into HTML at the time of release. It also converted the entire CWRU backlist to HTML.

In the past four years we have had to make two changes in the conversion software we used with the Supreme Court decisions. Prior to October of 1997 we based our work on decisions in WordPerfect format. In the fall of 1997 the Court switched to releasing its decisions in a PDF-format, which forced us to create a system to convert that format to HTML. This system served us (and others) for a year. In 1998 we changed our process to make use of a tagged ASCII format which the Court began to release part way through the 1997 term.

The commercial publishers that rely on a direct feed from the Court have found this series of switches at least as disruptive as we have. Some of them have consulted with the LII about methods of conversion. Interestingly, the commercial operation which publishes the daily law trade paper in Chicago, Law Bulletin Publishing Company, still finds it easier and more reliable to use our conversion routines than to create their own – a relationship which puts the name of the Cornell Law School in front of every Chicago lawyer reading a Supreme Court opinion in its pages.

In order to provide a collection of key earlier decisions for CD-ROM and Net distribution, the LII entered into a licensing agreement with Infosynthesis, a start-up electronic publisher, under which the LII created its Historic Collection CD-ROM.

While other Internet sources of Supreme Court decisions have since arisen, the LII's non-commercial status, timeliness, and high quality have made it the Court's de facto Web site. The Court's public information office routinely refers the press and others to the LII site for Court decisions and information. Both print and on-line news organizations draw current decisions, orders, and related material from [supct.law.cornell.edu](http://supct.law.cornell.edu). Staff at the Court furnish the LII with Court schedule and information on pending cases in digital format for posting. The working relationship is informal, but close.

The LII Supreme Court server is linked to by many news and public-interest organizations, including MSNBC, the Seattle Times, the National Organization of Women, the International Association of Airport Executives, and countless law firms, public libraries, and educational institutions. This past fall we added a much-requested service: the ability to search all of the Court's order lists for actions in particular cases.

During the period the Court is in session, roughly 20 percent of the traffic at the LII Web site involves use of the Supreme Court data.

It seems inevitable that the Court will establish its own Web site. Indeed, since the Court has been distributing its decisions in digital format for a decade the greater surprise is that it has not already done so. When that occurs, the LII's role will undoubtedly shift. It is very unlikely, however, given the range of information services the LII has built around and upon its Supreme Court collection and its constantly evolving high standard of functionality that an official Court site will displace the LII.

Deep information integration is one reason the LII collection of Supreme Court decisions will continue to be a heavily used resource following establishment of an official site. Software tools built by the LII not only convert the Court's decisions to HTML they also link references in the opinions to the cited authorities (earlier decisions of the Court, provisions of the U.S. Code and Constitution, and sections of the Code of Federal Regulations). Integration involves links that point the other way as well. The LII "Law About ..." pages and its collection of decisions of the New York Court of Appeals, discussed below, are linked to the LII Supreme Court collection. Its distance learning course materials will do so as well.

## **N.Y. Court of Appeals**

### **Opinions**

The LII's collection of recent decisions of the New York Court of Appeals is both a consequence of and a continuing source of the LII's relationship with the New York State Bar Association. A member of the association's Task Force on Electronic Communication (ECTF) mentioned during an early meeting between that group and the LII that he possessed a digital archive of the Court's decisions, drawn from its dial-up bulletin board, dating back to 1991. A partnership took shape with that member, Jack Lippert, contributing his complete archive to the LII and proceeding over a period of five years to download the Court's decisions on the day of release and forward them to the LII.

This collection created the foundation for LIIBULLETIN-NY, discussed below, and it led the staff of the New York Court of Claims to seek a contract with the LII for creation of a decision database system for that court.

In November 1999, the Court of Appeals opened its own Web site. The existence of this official site should simplify the process of data acquisition and formatting for the LII, but at least short term it falls far short of rendering the LII's collection redundant. The limited time for decision retention at the Court's site and the modest level of data markup (with resulting limitation on search functionality) leaves an important continuing role for the LII's collection to play. And the relationship of this collection to LIIBULLETIN-NY and the Institute's relationship with the state give this activity a level of importance not revealed in

server statistics. (In a week when the Supreme Court collection generates a million and a half hits, the New York Court of Appeals collection will be responsible for a modest 25,000 or so.)

## **Current-awareness services**

### **LIIBULLETIN**

Few if any of the services offered by the LII Web site have the impact and profile of the LIIBULLETIN. Approximately 20,000 direct subscribers receive this e-mail delivered current awareness service. Significant numbers of those are law firm, corporate and court librarians or bar association section representatives who turn around and redistribute the bulletin or portions of it to others.

Initially prepared manually, the bulletin is now generated by software from the syllabus portion of the Court's decisions. After a light edit, it is dispatched by one of the LII co-directors. Since the decision summaries all carry links back to the full text of the opinions the bulletin is tightly integrated with the LII's Supreme Court Web site.

### **LIIBULLETIN-NY**

Now in its fifth year, the LIIBULLETIN-NY provides commentary on important decisions of the New York Court of Appeals, delivered via e-mail within a few business days of the release of the decisions. In its current form, this student-written bulletin provides synopsis and summation plus succinct analysis of all full decisions, plus deeper commentary on important ones. Decisions are selected for commentary treatment by a student editor-in-chief and passed on to teams of four to seven student editors; each team produces a write-up of one decision. The internal workings of teams are entirely their own affair; some approach the work using a divide-and-conquer strategy; others undertake the entire effort as a group.

The benefit to the audience is timely and insightful commentary, not available from any other source. The students benefit from a writing experience that is both utterly unlike anything else they will do in law school and very much like work they will encounter in practice. Students who mention their work on bulletin in job interviews report to us that while many practitioners are initially thrown by the electronic nature of the publication, they rapidly realize that the unpredictability of the subject matter and the need for both speed and depth make the LIIBULLETIN-NY experience highly valuable as preparation for work in their firms.

Currently LIIBULLETIN-NY has approximately 2800 subscribers, more than any of the three student-edited print journals published at the School. It is read at a large number of law firms, by legislative staff in other states, at Ernst & Young and at Andersen Consulting, and in Fiji and South Africa.

Two related changes to the bulletin took place this year. First, it received financial sponsorship from the New York State Bar Association and second, to justify and cement that relationship, the bulletin expanded its coverage to include summaries of all decisions with full opinions by the Court, in addition to deeper commentary on selected important ones. This expansion involved assigning a member of the summer work team to prepare summaries of the Court's decisions for the months of May through July and organizing a special intersession team to deal with the decisions of late November and December.

### **LIIBULLETIN-PATENT**

Patterned on LIIBULLETIN-NY and overseen by the same editorial structure (same editor in chief and managing editors) this service was launched on an experimental basis in 1998-99 but only hit its stride in 1999-2000. Staffed by students with a keen interest in intellectual property issues, this bulletin focuses on the patent appeals decided by the U.S. Court of Appeals for the Federal Circuit (which has exclusive jurisdiction over all appealed patent decisions of the U.S. District Courts).

## United States Code

Our single most heavily used Web collection commenced as a small scale experiment in presenting statutory material via the Net. We began with portions of the U.S. Code that we had already converted to rich hypertext format for disk distribution -- the Administrative Procedure Act, Copyright Act and others. Having built these prototypes by hand, we engaged in a series of subsequent experiments in creating a highly functional version of the full U.S. Code working with digital source material acquired from U.S. government. Initially our source was a CD-ROM, available to anyone from the Government Printing Office for under \$40. Later we shifted to more up-to-date downloadable files the Office of Law Revision of the U.S. House of Representatives had begun to make available on the Net. Although the LII's on-line U.S. Code was once a Net "exclusive" it has long since become one of many. The House of Representatives itself offers a searchable version. Nonetheless, this LII resource continues to draw over 3 million hits a week.

The explanation lies not in unique content but distinctive features of format and functionality. While this collection's content is drawn from the government, it has been reformatted and given navigation and finding aids not available elsewhere on the Net.

During 1998-99 we added a number of new features that have increased use of this resource. They include richer linking of cross-references, more detailed tables of contents, integration with the LII collection of topical overviews of areas of law, links between the Code and related portions of the CFR, and an updating feature which pulls together separate services offered by the LII, the House of Representatives, and the Government Printing Office.

The heavy use of this particular resource and repeated inquiries from users has led us to believe that if we were to add downloadable versions of key titles of the Code, at a level of quality comparable to our current browsable and searchable version, and charged a modest fee (\$5 a title, say) we would, in all likelihood, realize a substantial revenue stream. While there would be non-trivial additional costs, of both construction and support, the net return could be quite attractive.

## Original content

"Law about ... " pages

The LII currently offers more than 100 topical or "Law about ..." pages. Each provides brief exposition of a particular area of law (such as banking law or the law of employment discrimination). The term "page" refers to the fact that each is its own Web page; most are far longer than a single print page in length. All offer concise overviews couched in lay language, and aim to provide context for someone (perhaps even a lawyer) needing it on a particular topic. Each also provides links to key primary authority (statutes, regulations, and court opinions) as well as to other high quality resources focusing on its topic.

Because of the shifting nature of Internet resources, these pages present a significant maintenance problem. At present we devote several person-weeks' time to their upkeep each summer, but it is becoming increasingly clear that a high-quality job demands ongoing maintenance through the year. The work is amply justified by the audience; these pages are an important source of context-setting information and help for non-lawyer professionals, non-U.S. users, and others accessing our site. Currently they account for roughly five percent of our site's total traffic. Three factors will cause their importance to increase with time. First, the rapid growth of public sites placing the output of a court, a legislature, or an agency on the Net creates an ever greater need for organizing and contextualizing devices. Second, these pages represent a key element in our own plans to built better integration into the LII site -- a means of guiding users from the U.S. Code to relevant decisions of federal and state courts, for example. Finally, since they draw upon student talent and faculty expertise they represent a form of comparative advantage that already distinguishes the LII site from those sponsored by public bodies and commercial entities. Apparently West Group recognizes the distinction; they have recently added material to their Web site that closely parallels ours.

## Pages and search engines organizing legal material placed on the Net by others

The "Law about ..." pages are but one of a cluster of organizing tools, some software-based and others editorially built and maintained, that make the LII a favored law "portal site". One set of pages organize the Net's legal materials by state (statutes, court decisions, administrative regulations and so on for each state). Another set of pages organize state statutes by topic, enabling a user to follow the same issue or topic (ranging from marriage to workers compensation) from state to state. Others provide access to uniform laws, both as originally promulgated by the National Conference of Commissioners on Uniform State Laws and as enacted by the various states, and legal materials, country by country, around the globe.

## Backgrounders

From the beginning, we have been aware that significant numbers of our audience were people who act as information brokers for others – a phrase that describes high school teachers and journalists as well as librarians and public policy analysts. Two years ago we conceived the possibility of small, topical collections of legal information and exposition which could serve as resource collections and brief introductions to the law affecting matters in which there was both current and recurrent interest – the law behind items in the news. Thus far we have published "LII backgrounders" on both Amistad cases (the original, and the movie copyright case), the insanity defense (in the context of the Unabomber trial), impeachment, Internet gambling, and forfeiture laws.

## 9.2 Standards and technology domain

The business of making the legal Internet usable crucially depends on finding new analogs for some very old devices that make particular texts locatable – devices for organizing, finding, and sorting whose print predecessors have become so ubiquitous and familiar as to be invisible. The very public and decentralized nature of the Net adds the need for interoperability between collections: a set of common approaches to these problems that permit cross-referencing between individual collections and that act to create common functionality among them. This is a world of electronic text that is vastly different from the one we inhabited just a few years ago, one in which one or two giant commercial actors determined how things were done. The LII is a major player in determining what the standards for interoperability, markup, and resource location will be. Our sponsorship of a high-level invitational workshop on these issues in July of 2000 is the first step in what we hope will be an ongoing international standards effort.

At the same time, legal publishers who use the Internet are encountering a vastly larger and more diverse audience for American legal materials than the commercial giants have traditionally perceived or dealt with. Often, it is an audience that is highly sophisticated in its needs even though it is not an audience of lawyers; professionals of all kinds in many countries make use of legal information. This new and important audience is largely ignorant of the idiosyncrasies of legal research and is, in effect, asking why legal research can't be done in ways that are closer to other forms of online research. It is a good question, and while there are doubtless sound reasons why legal research *must* be different there is also little doubt that a commercial duopoly serving an all-lawyer audience has had little reason to innovate or to make things easier – and hence they have not. Much of our work involves determining how we may build things that serve these nontraditional audiences better. We do so in the belief that finding and organizing legal information is not all that easy for lawyers either, and that ultimately improvements in the environment for the general audience will improve things for legal professionals as well.

Our present and future work along these lines falls into three general areas:

### 9.2.1 Markup standards and document structuring

Markup, in the most general sense, is any data which appears in a text that is not the text itself. In the past, we have largely thought of markup as a typographic matter ("make the heading bigger and bold"), ignoring the fact that typography was really a proxy for logical meaning ("this is an important thing that describes

what follows”). Electronic texts on the Internet use markup as a way of denoting logical meaning, and leave the specific rendering of something like a heading to the software doing the display (“this is a heading—do the heading thing with it”, to which the software responds by making it bigger and bold). In the broadest sense we are now using markup to indicate document structure and meaning rather than using it to enforce document appearance. As a practical matter, this means that markup standards and practices have a huge effect on what we can do with the texts being marked up – what we can search them for, how we can decompose them into pieces, what we can say about them, how we can use computers to process them.

## 9.2.2 Metadata and metadata-description standards

Metadata is simply data about data – the sort of information you would use to catalog a document, such as descriptions of its format, creator, and subject matter. The reasons that compel standardization efforts in this arena parallel those that make standardization of markup desirable, but there are some added complications. Metadata standards must to a much larger degree conform to (and, we hope, rationalize and codify) a rather baroque and tangled set of practices used in the cataloging of printed works. Real evolution in this area demands a degree of consideration and cooperation that will be extremely difficult for the library technical-services community to embrace, at least initially. Together, these two factors create a rather difficult environment for a seemingly straightforward task; it will be an area where both legitimate and irrational concern over standards and practices will create tremendous inertia.

## 9.2.3 Our efforts

In the future we plan to continue to develop testbeds for these new standards, with the twin goals of determining that contemplated standards actually work in practice and of demonstrating that the work involved in conforming pre-existing collections can result in worthwhile improvements in functionality. At the same time, we recognize a great future need for documentation and promulgation of standardization work by more formal and inclusive means than we have used in the past. (Legal academics will recognize this process as containing the same potential for endless haggling and ultimate glory that would be associated with work on a restatement of the law.) We believe that it would give us considerable scope for leadership.

## 9.2.4 The LII Invitational Workshop on Standards

In the early days of the legal Web, the LII helped to determine informal standards simply by being the first to do things and by doing them in a highly-functional way so that it made sense for others to imitate us. In the current environment, this sort of leadership needs to become formalized, for two reasons. First, we need to reach a much larger number of actors many of whom are undertaking Web publication without much forethought or knowledge; they need to be educated into a series of good practices that will, in turn, serve their purposes. Second, there is a lot more community expertise than there was even two years ago, and we need to take advantage of it. Third, widely held technical standards such as XML are evolving in directions that increase behind-the-scenes complexity even as they simplify things for end users, and they demand that we approach them carefully and with consideration. For all those reasons, the LII needs to spend more of its time in formal standards development and experimentation than it currently has time for.

An initial step in this direction is the LII Invitational Workshop on Standards for Public Legal Information, to be held in July of this year. Roughly twenty participants drawn from leading public legal information providers in seven countries will meet here to discuss future standards and directions in the areas described above. The list of invitees includes participants from all of the major English-speaking jurisdictions, from important US Government web publishers (House of Representatives, Library of Congress, GPO), and from the highest quality sites offering legal information within the United States, as well as from important sites in Norway, South Africa, and elsewhere. We believe that these discussions will be an important first step in establishing cooperative relationships and interoperable technologies shared between “law-not-coms” worldwide.

## 9.2.5 Query-improvement

Current research in information retrieval seeks to increase the performance of search engines and other retrieval mechanisms in ways that can be applied to a wide variety of textual material. This general approach is of course worthwhile, but it ignores certain unique problems and advantages of electronic legal text.

First, it puts its emphasis on improving the behavior of the search engine itself rather than on increasing the sophistication and general level of appropriateness of the queries being addressed to it. This is a real problem; we find that most unsuccessful searches on our site are unsuccessful because the user is naïve about what to ask, not because the search engines do not perform well. This lack of sophistication shows itself at every level from simple misspelling of keywords to ignorance about whether state or Federal law should be searched.

Second, general information-retrieval research ignores specific signifiers and structures uniquely applicable to legal material. As a trivial example, it is pretty clear that a search on the phrase “smith v. jones” should be limited to caselaw collections. Non-trivial examples involve the use of information about the searcher or the likely topic being searched to restrict searches to particular statutes or jurisdictions, use of known clustering patterns based on precedent and citation to find relevant material, and so on.

Such approaches are uniquely interesting to legal publishers. Work on them can lead to systems that are more usable for practitioners and other “law people” as well as for the private citizen, and the LII is one of the few places outside the private sector that is well positioned to undertake such research.

## 9.3 *Teaching, training, and learning domain*

### 9.3.1 The LII's First Distance Learning Venture -- 1996-1999

One of the heaviest users of LII course materials has been the Chicago-Kent Law School, widely known for its commitment to the integration of computer technology with legal education. Over several years it offered a full section of its first-year program in electronic format.

In 1995-96 the LII worked closely with Chicago-Kent to study the benefits and problems associated with pervasive student use of electronic course materials. The resulting LII report, based on regular classroom observation, interviews with faculty and students, and detailed questionnaires, has been widely disseminated and discussed by law teachers and publishers since its release in the summer of 1996.

The following academic year (1996-97) LII undertook to explore how digital technology might be used by law schools to reach students (and involve faculty) remote from their campuses. Using the Internet, it offered a law course, for credit, to students of four participating law schools -- Cornell plus Chicago-Kent, Colorado, and Kansas.

The experiment's underlying aim (shared by all the participating schools) was to discover ways that network communication, with its ability to nullify barriers imposed by distance and advantages provided by proximity, could be used to reach distant students (of many kinds) and to give resident students wider educational options. The original experiment yielded positive results and the course was repeated with continuing modification in 1997-98 and 1998-99.

## **Administrative Arrangements**

The course was approved as a part of the curriculum at each of the participating institutions and for purposes of the course its teacher, Martin, was appointed an adjunct or visiting member of the other three faculties. Each of the schools handled the administrative details for its own students. Students registered for the course with their home institution, examinations were administered there, and grades were assigned

in accordance with local grading norms and procedures. Cornell Law school furnished the course, through the LII, and each of the other schools paid a lump sum of \$5000 for it (an amount set to approximate the stipend these same schools might pay an adjunct faculty member covering a specialized area). All instructional and student evaluation responsibilities were carried by Martin. Martin made one visit to each of the participating schools several weeks after the course had begun to conduct a face-to-face meeting with all the students and to uncover and resolve any issues of course procedures or expectations on their minds.

The participating schools were also responsible for providing a classroom with the necessary computer and network connection, a technology person capable of setting up the videoconference software on that computer and troubleshooting any problems, and an administrative contact person. Because the course included regular sessions in a classroom at each of the law school sites, ABA accreditation standards for resident education were met. (The temporary guidelines governing distance education issued by the ABA during the second year of the course are far from clear in their scope. Since the special approval procedure set out in the guidelines appears focused on courses delivered to students away from law schools, particularly to students where they live or work, all the schools participating in this venture concluded that it was not necessary to follow it.)

## **Course Content and Aim**

The content of the course was copyright law, in its application to digital works. Distance learning can be viewed as a solution to many different "problems". The problem at which this particular course was aimed was the limitation on important upper-class electives resulting from the lack of match up between faculty expertise and teaching interests and a critical mass of students within a single institution. Using the Net, this course framework allowed all four schools to provide an advanced upper-class offering that no one of the participating schools could reasonably have mounted on its own -- because of a lack of faculty expertise, sufficient numbers of interested students, or both.

## **How Net Technologies Were Mapped Against Conventional Law School Practices**

The course was constructed and carried out using a set of "off the shelf" Internet tools and technologies. All of the assigned readings were placed on the Net, at the LII web site. (The most recent version of the course still resides at: <http://lii.law.cornell.edu/ecourse/>) Those readings were posted, along with a set of questions and often a problem scenario, at the beginning of each course unit. (Units corresponded roughly to a week.) A Web-based conferencing environment provided the means for discussion of the assigned material, generally in the context of one or more problem scenarios. The particular conferencing software used changed from year-to-year as the options evolved, the most recent being WebBoard. This medium of written exchange was used in fairly typical Socratic fashion by the teacher. A day or two after posting of the unit's reading assignment, the teacher would lead off discussion with a question. Since, in such an asynchronous discussion, multiple threads can be sustained at once, the teacher would often initiate a second or even third line of inquiry before the first had come to rest. This Web-based written exchange led up to a culminating "real-time" videoconference class, which brought the unit to a close. Twenty-four hours prior to that videoconference, the teacher sent an agenda to the entire class by e-mail. This agenda built on the class discussion carried out in the WebBoard conference, laid out the sequence of principal questions to be pursued in the videoconference class, and identified the schools to which each of those questions would first be addressed.

The videoconference session was conducted using "desktop" conferencing software. The use of such low bandwidth technology put participation within the reach of all the schools, indeed, within the reach of most U.S. law schools. It required only that the participating schools have a classroom with a high bandwidth Internet connection and a multimedia-capable computer with microphone and digital camera. The LII ran "reflector" software on one of its servers that enabled all five sites -- the teacher's office and classrooms at the four schools -- to see and hear one another. The discussion was led by the teacher who called upon students at one site and then students at another. The videoconferencing software (CUSEEME) included a

keyboard chat window which was available for use by students at one site to indicate a desire to respond to a point being made by the current speaker or to signal their failure to understand. The teacher ran an audio tape recorder during the entire session. This provided a backup for those occasions when one of the sites lost its videoconference connection. (When one of the sites did get cut off, the established course procedure called for the students at that site to conduct their own discussion, following the agenda for the week, and to post a summary of their conclusions to the course WebBoard. A written summary or digital audio files prepared from the audio tape of the discussion carried out by the other sites and teacher was, in turn, available to those at the disconnected site.)

In addition to these asynchronous written discussions and weekly videoconferences, the students at each of the participating schools were instructed to schedule one local discussion session a week with one another.

Each of the years the course was offered it included an additional written project. The ultimate form this element of the course took was a position paper on one of a list of current issues or proposals for legislative change within the scope of the course. Each student had to prepare a three page essay on a topic and present its highlights to the rest of the class during a videoconference session.

## **Course schedule**

Because of the different start times and different vacation patterns of the four participating schools, it was impossible to fit a three credit semester course into a single term. Consequently the course began in the fall semester, took a recess before the fall exam period, and resumed in late January, ending with an exam in early March. Topics for the individual position papers were assigned before the long December-January break, and those papers were due at its conclusion.

The course ended with a conventional exam, prepared by the teacher but administered under the groundrules of the respective participating schools. In order to allow full use of the digital materials with which the course had been carried out in the examination, it was administered as a "take-home" in the three schools that did not otherwise permit use of computers in taking exams.

### **9.3.2 The LII's Future Distance Learning Plans**

#### **Some Initial Choices**

As those who are longtime distance education practitioners point out, often with some irritation, distance education has a lengthy and honorable history. Despite that history, the explosion of digital technology has truly redefined the field. Distance education is no longer limited to what can be accomplished with printed materials, audio and videotapes, submission of assignments by mail, and broadcast lectures. Ubiquitous access to the Internet, with its multiple modes of interaction and its capacity for on-demand delivery of audio, video, and programmed exercises, has created a hugely expanded set of educational opportunities. As a recent College Board Report explains:

[It is now possible] to transcend barriers of time and space in ways unimagined only a few years ago. Almost anything - text, data, images, video, audio - can be delivered electronically, almost anywhere in the world, almost any time and in real time, over the Internet. Imaging and Web-based technologies are also constantly enhancing the potential for two-way communications between and among teachers and students in remote locations.

The resulting new opportunities can be organized and analyzed along several dimensions. They can be categorized according to the technology that they utilize (high-end versus desktop videoconferencing, synchronous versus asynchronous exchange), the audiences or markets they are designed to reach (degree seeking professional students, students of other stripes with some interest in law, lawyers in need of continuing education, other professionals or citizens seeking an introduction to some law topic, but not a

degree, and so on), the educational approaches they embody (lecture, self-study, teacher or computer mediated tutorials and exercises, and so forth).

Choices made as to each of these dimensions will, of course, have implications for the others. The selection of technology, for example, will necessarily affect both the available audience and possible educational approaches. Since an economic concern underlies much of the interest in distance education, the factors of revenue and cost also lie close to the surface.

The LII's investigation of distance education and its future plans have been premised upon several fundamental choices. First, we have limited ourselves to technologies that are widely "accessible" at low cost. Second, we have focused on pedagogical methods that reflect the traditional law school interactive teaching paradigm. Third, we have proceeded with the conviction that so radically different an educational environment requires substantial rethinking of established methods -- especially if one is aiming for a model of distance education that can be both replicated and scaled.

## **A Common First Step That We Have Not Taken**

A widely practiced form of distance education represents the simple extension of conventional classroom practice through high-end videoconferencing technology. Classrooms at more than one location are linked to permit a teacher at one of those locations to lecture or conduct more elaborate presentation for students who are assembled at the same time in all the linked locations. With additional investment in technology infrastructure those additional students at distant locations can participate in discussion with the teacher and each other. The principal advantage of this mode of distance education is that it requires very little adjustment of practice or expectation on the part of either teacher or student. It can also be used to create highly diverse collections of students (students gathered in classrooms in different countries, for example) and can link faculty members with students they might otherwise be unable to teach.

The drawbacks of this mode of distance education include its high-cost at both the sending and receiving end and its requirement that faculty and students assemble in "real-time." The latter can become increasingly problematic as sites are linked across different time zones.

The LII's future distance education initiatives will build on its experience using a mixture of less costly technologies, and patterns of instruction that make substantial use of asynchronous exchange.

## **Next Steps for the LII**

Our first distance learning course was a success in the limited sense that it posed and answered the important question: "Can a teacher assemble a critical mass of students across multiple institutions and, using off-the-shelf Internet software, effectively deliver an upper level law course?" Our experience says "yes." During this three-year experiment, we developed a recipe for doing just that. It is, however, a recipe that calls for both significant adjustment in pedagogy and a continuing level of teacher innovation and risk taking. Those requirements plus a strong sense, widely confirmed by the experience of others in the distance learning field, that a ratio of 1 teacher to 30 students is close to the outer bound for effective "real time" interactive exchange yield a conclusion that this particular model of distance education cannot easily be replicated or scaled.

The LII's next distance learning ventures will seek to surmount those limitations. The basic components of LII distance learning, version 2, will include:

- digital readings
- hypermedia presentation (an audio track running linked to assigned texts and some graphic materials)\*

- computer-based tutorials and exercises (of the type CALI has long distributed) closely integrated with the readings
- asynchronous teacher-student, student-student discussion
- short writing assignments and problem-solving assignments submitted via the Net for teacher evaluation and feedback
- papers or a final exam as the means of final evaluation of mastery (which depending on the nature of the course)

\* The presentation component will be audio not video because of our conviction that the substantially greater cost of making and revising video materials is not warranted so long as the content is only a "talking head."

Our aim is to build a full law school course out of components that can be resized and reconfigured for use with such different audiences as: law students at Cornell and elsewhere, students in other units at Cornell, lawyers in pursuit of continuing education, and assorted others seeking an introduction (but not a full academic course) on these subjects. All three of the law schools that participated in the original experiment are prepared to join in again, so long as the course is not redundant. Numerous other schools have expressed interest, and the on-line law school Concord is prepared to buy a Copyright course from us next year, assuming we reach agreement on terms.

To lay the foundation for these next distance learning offerings, Martin organized and taught a course on copyright law this fall and is offering a social security law course this spring. The full construction process has entailed preparation of a complete set of readings (necessary in order to avoid any rights problems in connection with digital distribution), framing class discussion in terms that will translate reasonably to asynchronous exchange, audio taping all classes to assist in the preparation of recorded presentation modules, and development and implementation of a number of on-line "mastery exercises."

## Looking Further Ahead

Once we have acquired experience and developed a model working with Martin-supplied content, we should be prepared to collaborate with other members of the faculty. Indeed, we hope to be in a position to take a teacher with a well established course and strong presentation skills and, with ample resources, assist them to produce a distance version for LII delivery. We have long thought that Faust Rossi's evidence course would be a place to start. An alternate beginning point, however, might be an area defined not by distinctive pedagogical strength but rather by the relative uniqueness of a Cornell Law School teaching resource -- Ted Eisenberg on statistical research in law or Muna Ndulo on African law to pick two quite different examples.

## Convergence of Distance Learning with LII's Electronic Publishing

Inescapably, technology shapes the categories we use to discuss and think about human activity. The set of activities we think of as "education" and those we refer to as "research or information gathering" will likely blur together as they converge on the same set of digital technologies.

The successful providers of continuing professional education in law have increasingly become publishers of print materials, audio and video tapes to the point that most provide more "education" in this form than through live programs. These materials share the characteristic that they allow the learner to choose the time, place, and topic. Long term, we think it probable that the LII web publications and LII-developed distance learning approaches will interweave. We envision integrating introductory "learning" modules with the LII's "Law about ..." pages (administrative law, contracts, and so on) and its deeper libraries (the American Legal Ethics Library and the soon-to-appear Social Security Library). At the topmost level these

learning modules would involve no teacher-student interaction or evaluation and be freely accessible. They would also, however, provide a pathway to richer levels of content and interactivity -- distance learning options, if you will -- available for a fee to those with a need or the desire to go further.

### 9.3.3 Teaching what we know to others

Mechanisms for imparting what we know to others are described in several places in this document, and include such notions as summer workshops, distance learning courses, apprenticeships, and hosting of sabbaticals. There are also a number of settings in which we might impart expertise in more traditional ways. Bruce remains interested in offering a legal information systems seminar, and may again do so in the fall of 2000 if there is interest. Both Bruce and Martin have been approached for reactions to, and possible involvement with, the nascent information-sciences major slowly taking shape on campus. It thus seems likely that subjects under investigation by the LII will find their way into the formal curriculum sooner rather than later.

## 9.4 *Future-future projects*

We have any number of ideas that we have not pursued as yet, simply because we lack the time to do so. All are promising and all would serve to enhance our existing efforts and provide real service to a particular constituency or constituencies. We list them here as a kind of grab-bag of future directions.

- *On-line rights registry for legal academics*

Work with LEDA, with the LEXIS Bridge Project, and with the development of our own distance-learning courses has left us frustrated with the mechanisms used to obtain permissions for classroom use of journal articles and other teaching materials. We have the technological basis to provide a centralized location where law teachers might make public the terms and conditions under which their work might be used by others. It would be an enormously useful and visible service.

- *A continuing series of workshops*

Each year, the LII undertakes some project or projects that might provide focus for a workshop targeted at a particular group or groups. The standards workshop planned for this summer offers one archetype. Others might include workshops for users of particular LII products and services, such as high-school and college teachers using our Supreme Court CD, librarians using the LII Net-based resources, and so on.

- *“Post-docs” and visitors in residence from the library, legal-technology, and law faculty realms*

Much that we do here is of interest to populations that would come and study with us for a while, under any of the arrangements that are typically made in academia for such temporary stays. Recent graduates from Cornell and elsewhere might serve an apprenticeship in legal informatics here – a kind of “post doctoral” stint. Faculty with research interests similar to ours might make us a destination for a sabbatical, as might law-school technology people. And we already know that there is interest from the law-library community in the possibility of a residency program here.

- *Training, technology support, and backup for legal informatics projects in developing countries*

The LII already has experience with offering in-country legal-information initiatives in Zambia and to a lesser extent in China. We also have some experience in structuring and teaching background material useful to would-be entrepreneurs or public-access publishers of legal information in these areas. There is also considerable interest in cooperative international effort in this area coming to us from the UK and to some extent from Australia.

- *Development of distance-learning and publishing projects to support other CLS international efforts*

Last but by no means least we would be interested in working collaboratively with Cornell colleagues in constructing apparatus for use in the school's international initiatives.